62110 E/30 A12 (A35) KAGA- 09.12.80
KAGAKUHIN KENSA KYO *J5 7096-836
09.12.80-JP-173421 *(16.06.82)* B29h-03 C08c-19/12 C08j-07/12

Prepn. of rubber with high resistance to ozone - by treating surface of vulcanised nitrile butadiene rubber or its blend with vulcanised rubber in vapour of chlorinating agent

The surface of vulcanised nitrile/butadiene rubber or vulcanised rubber blended with nitrile/butadiene rubber is treated with the vapour of a chlorinating agent at 20-50°C for 1 min.-10 hrs.

ADVANTAGE

The process modifies the surface of nitrile/butadiene rubber to provide a rubber prod. having high resistance against ozone, oil and flame, and improved surface tackiness when the rubber sheets are stacked.

DETAILS

The nitrile/butadiene rubber comprises 15-50 wt.% of acrylonitrile and 85-50 wt.% of butadiene. A blend of the rubber, vulcanising agent, vulcanisation accelerator, antioxidant, filler and plasticiser is vulcanised conventionally and the vulcanised rubber is treated with the vapour of a chlorinating agent (e.g. thionyl chloride, chlorosulphonic acid or Cl_2 gas). If the rubber is immersed in a liquid chlorinating agent, the surface is hardened to degrade the properties. If the rubber is immersed in a soln. of chlorinating agent in a solvent, the rubber is swollen and wrinkles are formed on the surface by solvent evaporation.(5ppW59).

A(4-B4, 7-A2A, 9-A, 11-C4D)

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